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(54) Title: NEUREGULIN PROTEIN REGULATION OF SYNAPTIC PROTEINS

Human Nrg-ICD Polypeptide Sequence

SEQ	ID	NO:	1
KTKKQQRKKLHDLRLRQSLRSENNVMNMANGPHHPNPPPDNVQLVNQYVSKNIIS			
SERVVERETETSFSTSHYTSTTHHSMTVTQTTPSHSWNGHTESILSESHSVLVSSSV			
ENSRHTSPTGPRGRLNGIGGPREGNSFLRHARETPDSYRDSPH			
SERYVSAMTTPARMSPVDFHTPTSPKSPPEMSPPVSSLTISIPSAVSPFMDDEERP			
LLLVTPPRLREKYDNHLQQFNSFHNNPTHESENLSPLRIVEDEEYETTQEYEP			
QEPPKKLTNSRRVKRTKPNGHISRRVEVSDTSSQSTSSSESETEDERTGEDTPFLSI			
QNPMATSLPAAAYRLAENRTNPANRFSTPEELQARLSSVIANQDPIAV			

(57) Abstract: Methods are provided for discovery of new lead pharmaceuticals useful for addressing diseases and other problems of hearing. Compounds that modulate PSD-95 induction are discovered via use of the Nrg-1/Eos signaling pathway. Cell based assay systems are particularly described that identify modulation of binding of Nrg-ICD with an Eos binding site. Other features include the promotion and/or inhibition of Nrg-ICD translocation across nuclear membranes.

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